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PHYSICIAN PAYMENT REVIEW COMMISSION

MONITORING THE FINANCIAL LIABILITY OF MEDICARE BENEFICIARIES

No. 92-3

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1992

PHYSICIAN PAYMENT REVIEW COMMISSION

MONITORING THE FINANCIAL LIABILITY OF MEDICARE BENEFICIARIES

No. 92-3

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PREFACE

This report was submitted to the Congress in accordance with the Commission's responsibility under the Omnibus Budget Reconciliation Act of 1989 to review and comment on the recommendations of the Secretary of Health and Human Services concerning charges for unassigned claims and beneficiary liability for Medicare physicians' services.

Anne Schwartz and David Colby were the principal staff members responsible for the analysis in this report. The analysis also drew heavily on the work of Christopher Hogan in developing the Commission's plans for monitoring access.

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EXECUTIVE SUMMARY

The payment reforms enacted in the Omnibus Budget Reconciliation Act of 1989 (OBRA89) included several mechanisms to ensure financial protection of Medicare beneficiaries. The Medicare Fee Schedule and charge limits were intended to make it easier for beneficiaries to understand Medicare's charges and their own liability. The Secretary of Health and Human Services must also monitor charges on unassigned claims and develop plans to address any significant increases in beneficiary liability. The Commission is required to review and comment on this report.

OBRA89 specifically requires that the Secretary monitor: 1) actual charges of nonparticipating physicians for physicians' services furnished on or after January 1, 1991; 2) changes by specialty, type of service, and geographic area in the proportion of expenditures for services provided by participating physicians and the proportion of expenditures for services taken on assignment, and 3) amounts charged above Medicare's recognized payment amount.

This report analyzes charges for the period 1986 through 1990, providing the baseline against which assignment, participation, and balance billing under the new system can be compared. As in the Commission's work on monitoring access to care, such comparisons may pinpoint increases in beneficiaries' out-of-pocket costs. Of particular interest will be whether physicians change billing practices in response to changes in fees.

Participation has grown steadily since 1986. More than half (52.2 percent) of all physicians signed participation agreements during the most recent sign-up period (January 1992). This increase at a time when physicians could anticipate changes in their payments under the fee schedule is encouraging. Participation is also rising in all specialties including those whose payments were cut under OBRA87, OBRA89, and OBRA90. Services provided by PAR physicians accounted for 73 percent of total spending on physicians' services in 1991.

Assignment rates climbed dramatically during the late 1980s, from approximately 65 percent of allowed charges in 1986 to 80 percent in 1990. There remains considerable variation by geographic area, physician specialty, and type of service.

Between 1986 and 1990, the mean annual balance bill for beneficiaries receiving any services declined from $124 to $88. Average annual balance bills decreased across all beneficiary demographic and geographic categories, and fewer beneficiaries had annual balance bills exceeding $50. Balance bills are highest for expensive services such as global surgical services.

INTRODUCTION

In its first report to Congress in 1987, the Commission articulated goals for physician payment reform that recognized the important stake of beneficiaries in policy changes. Specifically, the Commission stated that reforms should: 1) result in a method of payment that is easier for beneficiaries to understand, 2) ensure access to medical care for all beneficiaries, 3) maintain or improve quality of care, and 4) maintain financial protection.

The payment reforms under the Omnibus Budget Reconciliation Act of 1989 (OBRA89) include several mechanisms to ensure the success of the system in meeting these goals. First, a schedule of fees that applies to physicians in all specialties in a given geographic area and flat percentage limits on balance billing were intended to make it simpler for beneficiaries to understand Medicare's charges and their own liability. Second, beginning in 1991, the Secretary of Health and Human Services is required to report each April 15 on changes in utilization, access and appropriateness, and to develop plans to address any identified problems. The Commission is required to review and comment on the Secretary's recommendations, in consultation with a panel of experts. Third, beginning this year, the Secretary is also required to monitor the charges on unassigned claims and to develop plans to address any significant increases in the liability of beneficiaries. The Commission is also required to review and comment on this report.

For the financial protection report, OBRA89 specifically requires that the Secretary monitor:

- the actual charges of nonparticipating physicians for physicians' services furnished on or after January 1, 1991;
- changes by specialty, type of service, and geographic area in the proportion of expenditures for services provided by participating physicians, and the proportion of expenditures for services taken on assignment; and
- amounts charged above Medicare's recognized payment amount.

The analysis of charges for the period 1986 through 1990 in this report provides the baseline against which assignment, participation, and balance billing under the new payment system can be compared.[1] It parallels the Commission's work on monitoring access to care by identifying geographic areas and vulnerable populations that are most

[1] With the exception of participation statistics, data for 1991 are not yet available to the Commission.

likely to be the first to show any ill effects of changes in physician billing practices. Just as comparisons of utilization before and after implementation of payment reform may indicate potential barriers to needed care, comparisons of participation, assignment, and balance billing may pinpoint increases in beneficiaries' out-of-pocket costs. Of particular interest will be whether physicians become more willing to accept assignment in areas or for services where Medicare fees increase under the Medicare Fee Schedule or if they are more likely to balance bill when fees go down. Because such changes may affect beneficiaries' ability to obtain needed care, the data presented here can be considered as additional baseline indicators of access against which the post-January 1, 1992 experience can be compared.

The report is divided into three sections. The first section presents historical data on Medicare's Participating Physician and Supplier (PAR) program. The second describes trends in assignment. In the third, beneficiary liability for balance bills is presented. Because the Secretary has not released the required report on monitoring of charges, the Commission does not comment on the Secretary's analysis or recommendations, and will do so in a separate document.

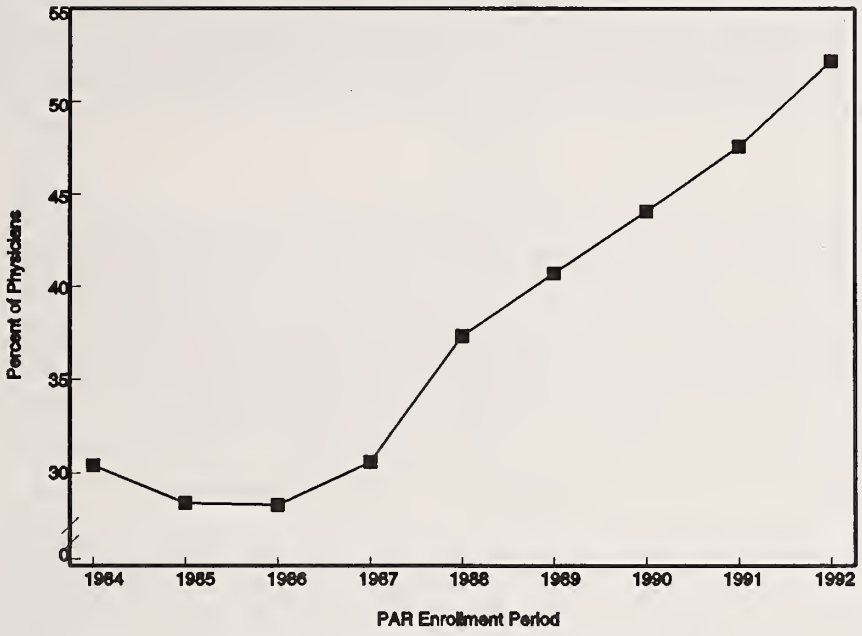
PARTICIPATION

Created in 1984, the Participating Physician and Supplier (PAR) program has been one of the most significant policies to limit beneficiary liability under Medicare Part B. Physicians signing participation agreements must take all claims in a given year on assignment; that is, they agree to accept the Medicare charge as payment in full on all claims, forgoing the opportunity to bill patients any additional amount. In return, they are paid 5 percent more than other physicians, are listed in a directory available to beneficiaries, and receive expedited claims processing.

Enrollment in the PAR program was somewhat volatile during its first few years but has grown steadily since 1986 (Figure 1). More than half (52.2 percent) of all physicians signed participation agreements during the most recent sign-up period (January 1992).

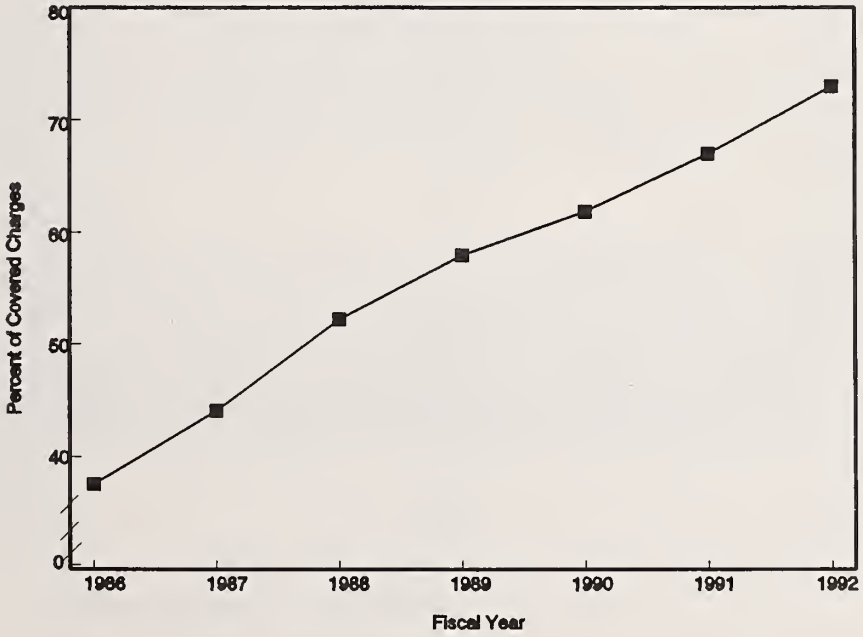
Services provided by PAR physicians accounted for 73 percent of total spending on physicians' services in 1991, growing from only 37 percent in 1987 (Figure 2). While it is difficult to predict how payment under the fee schedule will affect physicians' participation decisions, the increase in enrollment (from 47.6 percent to 52.2 percent of physicians) during the 1992 sign-up period when physicians could anticipate changes in their payments under the fee schedule is encouraging. Moreover, participation has continued to rise even among those specialties whose payments were cut under the overvalued procedures reductions in OBRA87, OBRA89 and OBRA90.

Figure 1: Percent of Physicians Enrolled in Participating Physician and Supplier (PAR) Program, 1984-1992



Source: Health Care Financing Administration, Bureau of Program Operations

Figure 2: National Participation Rates Based on Covered Charges for All Claims, 1986-1992



Source: Health Care Financing Administration, Bureau of Program Operations

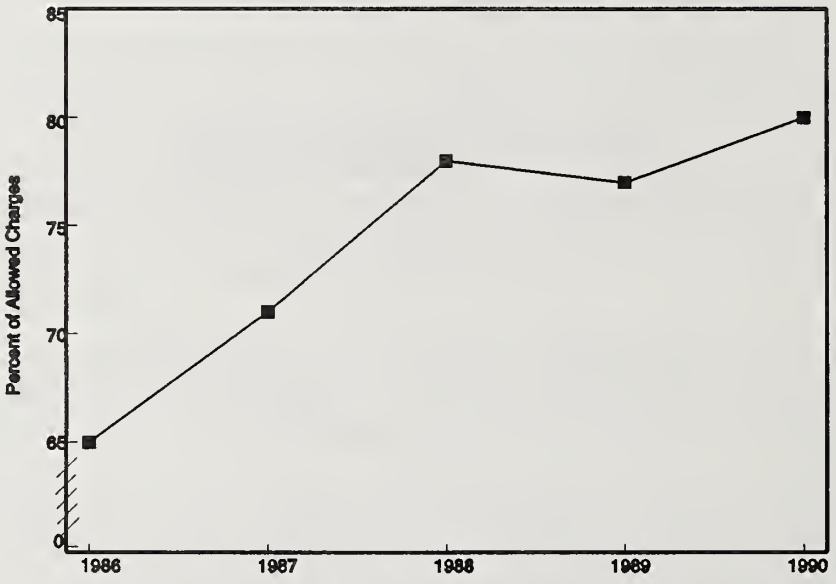
Note: Rates include physicians and nonphysicians.

Although participation rates have been rising in most states, these rates vary widely, ranging from a low of 23 percent in Idaho to a high of 83 percent in Alabama (Table 1). Participation also varies substantially across specialties. Historically, rates have been highest among cardiologists, radiologists, and general surgeons (72 percent, 68.2 percent, and 66.3 percent respectively in 1992) and lowest among anesthesiologists, psychiatrists, and general practitioners (48 percent, 48.8 percent, and 49.3 percent respectively in 1992) (Table 2).

ASSIGNMENT

While PAR physicians agree to accept assignment, taking the Medicare approved charge as payment in full on all claims, nonPAR physicians have the option of accepting assignment on an ad hoc basis. Assignment rates climbed dramatically during the late 1980s, from approximately 65 percent of allowed charges in 1986 to 80 percent in 1990 (Figure 3). Much of this increase appears attributable to growth of the PAR program.

Figure 3: Assignment Rates by Year, 1986-1990



Source: PPRC analysis of 1% sample of Medicare beneficiaries from BMAD-IV 1986-1990.

Table 1. Participation Rates by State, 1986 and 1992

State	Percent of Practitioners 1986	1992
Alabama	63	83
Alaska	23	55
Arizona	19	65
Arkansas	35	58
California	40	63
Colorado	24	48
Connecticut	19	48
Delaware	30	52
District of Columbia	26	46
Florida	23	42
Georgia	28	57
Hawaii	42	64
Idaho	10	23
Illinois	22	51
Indiana	21	49
Iowa	38	59
Kansas	40	70
Kentucky	28	64
Louisiana	13	45
Maine	29	52
Maryland	29	57
Massachusetts	43	50
Michigan	37	52
Minnesota	21	34
Mississippi	23	48
Missouri	24	52
Montana	14	24
Nebraska	24	61
Nevada	27	75
New Hampshire	27	39
New Jersey	21	37
New Mexico	14	54
New York	20	37
North Carolina	34	68
North Dakota	14	46
Ohio	26	57
Oklahoma	17	44
Oregon	23	52
Pennsylvania	46	53
Rhode Island	48	70
South Carolina	17	63
South Dakota	7	24
Tennessee	37	68
Texas	14	53
Utah	36	70
Vermont	38	54
Virginia	30	50
Washington	22	53
West Virginia	33	68
Wisconsin	38	56
Wyoming	17	50
U.S. TOTAL	**28.3**	**52.2**

Source: Health Care Financing Administration.

Note: Figures reflect all practitioners that can sign participation agreements including doctors of medicine and osteopathy, others defined as physicians under the Medicare statute, and certain nonphysician practitioners.

Table 2. Physician Participation Rates for Selected Specialties, 1987-1992

Specialty	January 1, 1987	April 1, 1988	January 1, 1989	April 1, 1990	January 1, 1991	January 1, 1992
All Practitioners	**30.6**	**37.3**	**40.7**	**44.1**	**47.6**	**52.2**
Cardiovascular Disease	43.2	52.8	55.5	60.6	65.4	72.0
Radiology	39.8	46.3	49.6	55.6	62.0	68.2
General Surgery	37.2	48.5	52.2	55.8	60.5	66.3
Ophthalmology	35.1	46.3	50.5	55.6	60.0	66.1
Pathology	41.2	48.1	50.6	53.4	59.2	65.8
Orthopedic Surgery	32.6	44.0	49.2	53.7	58.4	65.5
Podiatry	33.4	44.6	52.6	54.0	59.6	64.2
Neurology	37.2	44.1	49.2	53.1	56.1	63.8
Urology	30.9	41.7	45.6	49.6	53.6	61.7
Dermatology	38.1	45.7	48.7	53.4	57.0	61.6
Optometry	44.1	50.5	48.9	54.0	56.9	59.0
Obstetrics/Gynecology	31.5	40.4	44.2	48.8	52.6	58.0
Internal Medicine	33.6	41.2	45.2	48.8	52.6	57.8
Family Practice	27.1	35.6	39.7	47.2	50.8	57.7
Otorhinolaryngology	27.0	36.9	41.2	45.2	49.6	57.0
Anesthesiology	20.3	25.0	28.3	30.8	36.5	49.3
Psychiatry	28.6	34.4	37.8	41.6	44.1	48.8
General Practice	25.6	32.3	35.8	39.7	44.0	48.0

Source: Health Care Financing Administration.

Note: Specialties ordered according to 1992 participation rate.

Despite this overall increase in assignment, there remains considerable variation by geographic area, physician specialty, and type of service. Across states, 1990 assignment rates ranged from a high of 98 percent in Massachusetts, where state law prohibits balance billing by physicians, to a low of 41 percent in Wyoming (Table 3).[2] While assignment rates tend to be highest in New England and lowest in the Mountain states, there are substantial differences among states within the same Census region.

At the substate level, assignment rates also vary based on population density. They are highest in large urban areas (82 percent) and lowest in the most sparsely populated areas (65 percent) (Table 4). Because Medicare fees will change substantially in these areas (falling by 9 percent and increasing by up to 27 percent respectively), the Commission will watch with particular interest to see if these rates change.

[2] This is less than the 100 percent assignment rate one would expect under Massachusetts' law. This may be because assignment rates here are based on beneficiary residence, not place of service, and may reflect care received by Massachusetts residents in other states.

Table 3. Assignment Rates by State, 1986 and 1990

State	Percent of Allowed Charges 1986	1990
Alabama	72	91
Alaska	43	70
Arizona	55	74
Arkansas	69	89
California	61	78
Colorado	47	65
Connecticut	78	82
Delaware	78	91
District of Columbia	84	90
Florida	63	81
Georgia	58	76
Hawaii	64	79
Idaho	28	45
Illinois	55	71
Indiana	47	75
Iowa	48	70
Kansas	71	88
Kentucky	52	83
Louisiana	55	85
Maine	79	90
Maryland	83	88
Massachusetts	96	98
Michigan	96	93
Minnesota	52	60
Mississippi	68	82
Missouri	60	72
Montana	40	53
Nebraska	34	73
Nevada	79	94
New Hampshire	61	72
New Jersey	58	71
New Mexico	54	72
New York	71	79
North Carolina	59	77
North Dakota	31	63
Ohio	50	81
Oklahoma	40	62
Oregon	41	55
Pennsylvania	88	95
Rhode Island	94	96
South Carolina	78	83
South Dakota	27	42
Tennessee	57	83
Texas	57	77
Utah	57	78
Vermont	62	88
Virginia	72	83
Washington	39	57
West Virginia	71	92
Wisconsin	61	62
Wyoming	37	41
U.S. TOTAL	**65**	**80**

Source: PPRC analysis of 1% sample of Medicare beneficiaries from BMAD-IV 1986-1990.

Table 4. Assignment Rates by Geographic Areas, 1986 and 1990

Area	Percent of Allowed Charges 1986	1990
Urban > 1 million	69	82
Urban 250,000 - 1 million	65	81
Urban < 250,000	54	72
Rural > 35 persons/square mile	61	78
Rural < 35 persons/square mile	55	71
Rural < 6 persons/square mile	45	65
Health Professional Shortage Areas		
Yes	69	83
No	64	79
Zip Codes > 20% of population below poverty	70	85
Zip Codes < 20% of population below poverty	64	79

Source: PPRC analysis of 1% sample of Medicare beneficiaries from BMAD-IV 1986-1990.

Also of concern are changes in physicians' continuing willingness to accept assignment for residents of disadvantaged areas (Table 4). Currently, assignment rates are higher in areas designated as Health Professional Shortage Areas than in all other areas. Assignment is also somewhat higher in zip codes where more than 20 percent of the population lives at or below the federal poverty line.[3]

Assignment rates vary across different types of service as well (Table 5). Pathology services are most likely to be taken on assignment (94 percent of allowed charges in 1990), while anesthesia services are the least likely to be assigned (64 percent of allowed charges in 1990). Assignment rates for office visits, for which fees will increase under the fee schedule, are low relative to those of global surgical services, radiology, therapeutic procedures, and diagnostic procedures, all of which will receive lower fees.

Variation in assignment rates across specialties closely tracks variation in participation rates discussed above (Table 6). In 1990, cardiologists and ophthalmologists took 85 percent of allowed charges on assignment while anesthesiologists accepted assignment on 59 percent of their allowed charges. Assignment rates increased for all specialties between 1986 and 1990.

[3] Because zip codes can cover large geographic areas, beneficiaries living in these zip codes are not necessarily poor. This proxy is used because beneficiary income is not available from claims data.

Table 5. Assignment Rates by Type of Service, 1986 and 1990

Service Category	Percent of Allowed Charges 1986	1990
Evaluation and Management Services	62	76
Office Visits	50	67
Hospital Visits	67	80
Consultations	72	82
Global Surgical	62	80
Radiology	69	82
Pathology	77	94
Therapeutic Procedures	64	79
Diagnostic Procedures	68	82
Anesthesia	52	64

Source: PPRC analysis of 1% sample of Medicare beneficiaries from BMAD-IV 1986-1990.

Table 6. Assignment Rates for Selected Specialties, 1986 and 1990

Specialty	Percent of Allowed Charges 1986	1990
Medical		
Cardiovascular Disease	69	85
Family Practice/General Practice	55	73
Gastroenterology	69	84
Internal Medicine	60	74
Other Medical	75	85
Surgical		
General Surgery	63	81
Ophthalmology	68	85
Orthopedic Surgery	54	74
Thoracic Surgery	71	85
Urology	51	73
Other Surgical	55	75
Other		
Radiology	70	83
Anesthesiology	50	59
Pathology	71	82
All Other	78	86
All Physicians	**65**	**80**

Source: PPRC analysis of 1% sample of Medicare beneficiaries from BMAD-IV 1986-1990.

BALANCE BILLING

Since 1986, the amount that nonPAR physicians can bill in excess of the Medicare approved charge has been constrained, first by the policy of Maximum Allowable Actual Charges (MAACs) and since 1991, by flat percentage limits established under OBRA89.[4] These limits are being phased in, beginning in 1991. Currently, physicians may charge no more than the lower of 120 percent of Medicare's recognized payment amount and the 1991 limiting charge. In 1993 and thereafter, the limiting charge will be 115 percent of the Medicare Fee Schedule payment.[5]

The Commission's simulations, presented in its 1992 *Annual Report to Congress*, indicate that the OBRA89 limits will reduce beneficiaries' liability for balance bills by 74 percent. These simulations assume, however, that physicians will not change their balance billing behavior under the new payment system. This projected reduction may not be achieved if physicians begin to balance bill for services whose fees go down. On the other hand, physicians may be inclined to balance bill less frequently for those services whose fees will increase under the fee schedule. There is some concern, however, that some fees, particularly for office visits, are not increasing as much as originally anticipated and that the combination of smaller than anticipated fee increases and balance billing limits may result in some physicians receiving lower payments than under the previous payment system. This section presents data on the distribution of balance bills across Medicare beneficiaries, and variation in liability for balance bills by beneficiary demographic characteristics, by geographic area, and by type of service.

Between 1986 and 1990, the mean annual balance bill for beneficiaries receiving any services declined from $124 to $88 (Table 7). Balance bills, however, are not evenly distributed across beneficiaries. In 1990, 41 percent of beneficiaries who used any services had no balance bills; another 34 percent had balance bills between $1 and $50. But at the other end of the spectrum, 2 percent of beneficiaries had balance bills exceeding $1000. The percentage of beneficiaries with low balance bills (less than $50) declined somewhat between 1986 and 1990 (from 75 percent to 66 percent); the percentage of those with high balance bills has not changed.

Balance billing varies according to beneficiary demographic characteristics, and likely reflects use of services (Table 8). That is, beneficiaries who receive more services tend to have higher balance bills. Average balance bills are higher for men, whites, and beneficiaries who are hospitalized. Average balance bills also increase with age, with the exception of those over the age of 85. This may reflect the fact that the very oldest beneficiaries are less likely to receive major surgical procedures.

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[4] Created under OBRA86, MAACs limited balance billing by physicians based on their historical charges. Thus, MAAC limits differed from physician to physician, as well as among the individual procedures billed by an individual physician.

[5] Because nonPAR physicians are paid 95 percent of the fee schedule amount, the effective charge limit will be 109.25 percent of what PAR physicians are paid.

Table 7. Distribution of Total Annual Balance Bills per Beneficiary, 1986-1990

	Percent of Beneficiaries							
	$0	$1-50	$51-100	$101-250	$251-500	$501-1000	$1000+	Mean
1986	31	35	11	11	5	3	2	$124
1987	37	37	9	9	4	3	2	96
1988	44	33	8	7	4	2	1	78
1989	34	35	9	8	4	2	1	90
1990	41	34	9	8	4	2	2	88

Source: PPRC analysis of 1% sample of Medicare beneficiaries from BMAD-IV 1986-1990. The analysis includes non-Medicaid beneficiaries who received services.

Table 8. Average Total Balance Bill per Beneficiary by Selected Demographic Characteristics, 1986 and 1990

	1986	1990
All	$124	$ 88
Sex		
Male	137	99
Female	115	81
Race		
Black	59	40
Other	128	91
Age		
Under 65	114	74
65 - 74	124	88
75 - 84	131	96
85+	107	81
Hospitalized		
Yes	311	231
No	45	35

Source: PPRC analysis of 1% sample of Medicare beneficiaries from BMAD-IV 1986-1990. The analysis includes non-Medicaid beneficiaries who received services.

Across geographic areas, average balance bills are highest for residents of small urban areas and the least densely populated rural areas (Table 9). Residents of Health Professional Shortage Areas and persons living in poverty zip codes have lower average balance bills than other Medicare beneficiaries.

Table 9. Average Total Balance Bills by Geographic Area, 1986 and 1990

Area	1986	1990
Urban > 1 million	$135	$ 95
Urban 250,000 - 1 million	112	79
Urban < 250,000	137	102
Rural > 35 persons/square mile	104	74
Rural < 35 persons/square mile	124	94
Rural < 6 persons/square mile	145	101
Health Professional Shortage Areas		
Yes	99	63
No	126	91
Zip Codes > 20% of population below poverty	102	62
Zip Codes < 20% of population below poverty	127	92
ALL	**124**	**88**

Source: PPRC analysis of 1% sample of Medicare beneficiaries from BMAD-IV 1986-1990. The analysis includes non-Medicaid beneficiaries who received services.

For the subset of beneficiaries who received balance bills, the ratio of submitted to allowed charges was 1.46 in 1986, dropping to 1.40 in 1990. In other words, in 1990, the average balance bill for those balance billed was 40 percent of the Medicare approved amount. This ratio varies, however, across types of service and for services rendered by physicians in different specialties (Tables 10 and 11). The ratio is highest for anesthesia and pathology services, and lowest for office visits. Among specialties, the ratio is highest for anesthesiology, pathology and other surgical specialties, and lowest for ophthalmology. Most ratios, with the exception of thoracic surgery, declined between 1986 and 1990. In 1993 when OBRA89 charge limits are fully phased in, ratios for all services and specialties will be less than 1.15.

Table 10. Ratio of Submitted to Allowed Charges by Type of Service, 1986 and 1990

Service Category	1986	1990
Evaluation and Management Services	1.42	1.31
Office Visits	1.37	1.27
Hospital Visits	1.45	1.36
Consultations	1.40	1.33
Global Surgical	1.48	1.44
Radiology	1.38	1.31
Pathology	1.73	1.67
Therapeutic Procedures	1.54	1.40
Diagnostic Procedures	1.37	1.34
Anesthesia	1.74	1.70
ALL	**1.46**	**1.40**

Source: PPRC analysis of 1% sample of Medicare beneficiaries from BMAD-IV 1986-1990. The analysis is based on claims with balance bills.

Table 11. Ratio of Submitted to Allowed Charges by Specialty, 1986 and 1990

Specialty	1986	1990
Medical		
Cardiology	1.40	1.34
Family Practice/General Practice	1.47	1.36
Gastroenterology	1.37	1.33
Internal Medicine	1.41	1.32
Other Medical	1.54	1.45
Surgical		
General Surgery	1.48	1.45
Dermatology	1.43	1.34
Ophthalmology	1.33	1.32
Orthopedic Surgery	1.47	1.43
Thoracic	1.40	1.42
Urology	1.44	1.37
Other Surgical	1.64	1.57
Other		
Radiology	1.40	1.28
Pathology	1.82	1.51
Anesthesiology	1.74	1.68
All Other	1.45	1.43
All	**1.46**	**1.40**

Source: PPRC analysis of 1% sample of Medicare beneficiaries from BMAD-IV 1986-1990. The analysis is based on claims with balance bills.

Table 12. Average Balance Bill per Service by Type of Service, 1986 and 1990

Service Category	1986	1990
Evaluation and Management Services	$10	$10
Office Visits	8	7
Hospital Visits	12	12
Consultations	26	26
Global Surgical	294	384
Radiology	14	14
Pathology	7	13
Therapeutic Procedures	22	17
Diagnostic Procedures	14	15
Anesthesia	164	145

Source: PPRC analysis of 1% sample of Medicare beneficiaries from BMAD-IV 1986-1990. The analysis is based on claims with balance bills.

It is important to note that this ratio describes only the relative relationship of allowed to submitted charges. The financial burden on individual beneficiaries, however, depends upon the absolute dollar amount of the balance bill. Even though balance bills for both pathology and anesthesia services are high relative to allowed charges, the average balance bill per pathology service in 1992 was only $13 compared with an average balance bill of $145 for anesthesia services (Table 12). Absolute balance bills per service are highest for "big ticket" items, such as global surgical services and anesthesia. Not surprisingly, the highest average balance bills by physician specialty are for specialties that provide the most expensive services -- thoracic surgery and anesthesia (Table 13).[6] These averages are fairly similar between 1986 and 1990.

CONCLUSIONS

During the period between 1986 and 1990, Medicare beneficiaries' liability for charges above the program's approved amount decreased. Participation and assignment rates increased in most states, across all specialties, and for all types of service. Average annual balance bills decreased across all beneficiary demographic and geographic categories, and fewer beneficiaries had annual balance bills exceeding $50. Balance bills are highest for expensive services such as global surgical services.

[6] It is worth noting that while balance bills per service are relatively low for evaluation and management services, beneficiaries receive more of these services per year than they do other types of services.

Table 13. Average Balance Bill per Service by Specialty, 1986 and 1990

Specialty	1986	1990
Medical		
Cardiology	$19	$22
Family Practice/Group Practice	8	8
Gastroenterology	26	31
Internal Medicine	9	10
Other Medical	17	17
Surgical		
General Surgery	52	54
Dermatology	13	11
Ophthalmology	40	31
Orthopedic Surgery	51	47
Thoracic Surgery	153	202
Urology	31	34
Other Surgical	42	39
Other		
Radiology	14	13
Pathology	26	24
Anesthesia	163	144
All Other	13	13

Source: PPRC analysis of 1% sample of Medicare beneficiaries from BMAD-IV 1986-1990. The analysis is based on claims with balance bills.

In the future, the Commission will extend its analysis to data from 1991 and 1992, looking with particular interest to see if the trends described here continue in the period following fee schedule implementation. The Commission will also conduct additional analyses to probe the relationship between changes in fees and physicians' billing practices. Questions of interest may include whether changes in acceptance of assignment or the level of balance billing vary according to the magnitude of fee changes, whether these factors vary according to physician supply in a geographic area, or if they vary across geographic areas based on the differential between fees paid by Medicare and those of private payers.

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